From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: "E.Swain/T.Boyd" <lizboy@io.com>
Subject: 6146 for meter?
Message-ID: <Pine.BSI.3.96.970510075656.15766A-100000@bermuda.io.com>

Looking for a meter, am offering an NOS RCA 6146 for trade, or an NOS RCA 6146W for trade.

I am looking for a small (say 2"), round-faced meter, with the scale ideally in S-units, but would take one with a scale in milliamps, like 0 to 1 or 0 to 5. This is going into an application where 5 ma. yields full deflection. A 1 ma. or 200 microamp movement will do; I can add the appropriate shunt. Cosmetically it should look very nice (as nice as an NOS 6146!).

Would the above constitute a fair trade? If not, gentle advice humbly accepted.

Thanks!

Tom Boyd
lizboy@io.com

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: ARONGV@aol.com
Subject: 80 Rectifier Socket
Message-ID: <970510012904_-1433452514@emout13.mail.aol.com>

Hi Gang:

Finally dug into my RME 45 project. Wow, is there ever some creative wiring in there.

Thought I better start with rewiring and capping the power supply. Somebody swapped a 5Y3 for the original 80 rectifier. I can't believe what I'm seeing. Wiring around the cap is # 22 bare wire!

So while I'm pulling out this rats nest, can anyone direct me to a 4-pront socket? And I also need a 16, 16 mfd/450 volts and 10 Mfd/450 volts caps. know a source?

Thanks

Ron W0OIZ

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: anders@autopsy.corp.sgi.com (Greg Anders)
Subject: Any tips for EV 630 Mic.
Message-ID: <9705091234.ZM10459@autopsy.corp.sgi.com>

I recently purchased an EV 630 micropphone for use on AM with my Globe King 500B transmitter. I'm looking for tips or input on the mic's characteristics to assist in properly mating and equalizing this unit for good audio on AM. Currently I have the 630 feeding a tubed mic. preamp then a Furman equalizer and finally a DBX 262 compressor limiter. Any suggestions/gotchas for tuning this kind of setup for this particular microphone would be greatly appreciated.

Thanks again,

--

Greg Anders

"If at first you don't succeed......then skydiving is not for you"

anders@autopsy.corp.sgi.com
KG6YV

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: "JOSE V. GAVILA (EB5AGV/EC5AAU)" <eb5agv@ctv.es>
Subject: Re: BA Radiation...
Message-ID: <1.5.4.32.19970509203734.0069c570@sandra.ctv.es>

Hi Ott,

I have one EAC R-390A, 1967 vintage (S/N 1670) and... you guess it, it glows!!!. It is really a dim light and the CARRIER LEVEL meter glows a bit more than the LINE LEVEL. BTW, the meters appear to be original (as the rest of the receiver; it arrived here in high original condition, with all (except the _NICE_ Cosmos PTO) EAC parts, very clean, one cover, 3TF7 , 26Z5s, ...). But this is a bit off-topic...

Some time ago there were comments in the List about the meters glow and it was NOT due to the radiation but to the special paint, if I recall it right.

Best regards.

JOSE

At 19:13 9/05/97 GMT, you wrote:
>Hi Guys!
>
>Well this is sort of radiation question...
>
>Has anyone actually seen one of these BA meters glow? I have a half
>dozen or so of the 390/390A/391 rigs. Various contracts and
>manufacturers. All display radiation indications on a sensitive giger
>counter and yet, none one of the meters glows. Not even a little.
>
>Was wondering, were they very bright, bright, dim, any color?
>
>Anyone know why they don't glow now? Has the phosphor "burned out" if
>indeed the paint had phosphor in it?
>
>Has the radiation dissipated to a level that is too low to support a
>glow? If this is the case, how hot were the meters at the time of
>manufacture?
>
>Tnx, Ott
>

----

73 JOSE V. GAVILA (EB5AGV / EC5AAU)
Ausias March 46, 15
46910 Benetusser - VALENCIA
SPAIN

***** PLEASE, VISIT MY HOME PAGE! *****

http://www.geocities.com/SiliconValley/6992
e-mail: eb5agv@ctv.es & eb5agv@amsat.org

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: Jack Harper <jharper@bs2000.com>
Subject: Re: BA Radiation...(Glowing R390 Meters)
Message-ID: <199705092124.PAA09980@lynx.csn.net>

At 19:13 5/9/97 GMT, you wrote:

>Hi Guys!
>
>Well this is sort of radiation question...
>
>Has anyone actually seen one of these BA meters glow? I have a half
>dozen or so of the 390/390A/391 rigs. Various contracts and
>manufacturers. All display radiation indications on a sensitive giger
>counter and yet, none one of the meters glows. Not even a little.
>
>Was wondering, were they very bright, bright, dim, any color?
>
>Anyone know why they don't glow now? Has the phosphor "burned out" if
>indeed the paint had phosphor in it?
>
>Has the radiation dissipated to a level that is too low to support a
>glow? If this is the case, how hot were the meters at the time of
>manufacture?
>
>Tnx, Ott
>
>

I, unfortunately, do not *yet* have an R-390 (its on my shopping list) -- however, I do have a pair of Mish's NOS meters...

Turning the lights out -- one does not glow at all -- but the other -- Good Heaven's -- I can see the glow from 10-feet away (the one labelled "-20-10-5...VU+" etc). It is remarkably bright -- I have not yet measured the radiation levels with my trusty geiger so do not know if there is a difference. No idea why one glows and the other does not.

I do know that you can buy 'glow in the dark' sights for handguns (a glowing spot at the end of the barrel so that you can aim the thing in the dark at moving shadows (shudder)) that are, at least these days, made from something (phosphorous?) mixed with Tritium that has a short half life -- the glowing sights die out after about 5-years or so. But I assume for no particlular reason that the R-390 meters are the classic radium etc which has a much longer (I think) half life. So, still no idea why one meter glows and the other does not.

I remember as a kid reading that if you looked at a radium watch dial under a microscope that you could actually see the individual flashes of light from "dieing atoms" -- also just now remember that Edmund Scientific sold a gizmo in the early 1960's called, I think, a 'spinithareoscope' or some such that had a small radiation source with a Cadmium Sulfate (I think) screen with a small microscope and they claimed that you could see the individual flashes of light. I have a 20x inspection microscope that I use here at work to stare at PC boards that we have built (surface mount and all that) -- and looked at the glowing Mish meter in the dark -- very pretty at 20x but unfortunately no flashes of light -- clearly need 200x or 600x.

Amazing what a grown man will do to kill time on a friday afternoon... (I did not get out of here last night until 0300 this morning and then back in at 0900 -- so, I have an excuse :)

Regards to all...

Jack, KC0LR (Friend to all things Hammarlund -- and to things that glow in the dark)

```
---------------------------------------------------------------------
Jack Harper                             Bank Systems 2000, Inc.
e-mail: jharper@bs2000.com              350 Indiana Street, Suite 800
voice:  303-277-1892 fax: 303-277-1785  Golden, Colorado 80401 USA

                "21st Century Financial Applications"
        Optical Cards for Bank, EBT, and Medical Applications
Visit our Web Page: http://www.bs2000.com/talos (Last Update: 970312)

      1024-bit PGP crypto key with ID: 8FB07075 created 960728
    Fingerprint: 75 DA 06 35 F8 3D AC EC 3A F2 7C 59 A1 11 A5 74
      Key available from Public Key Servers and above Web Page
---------------------------------------------------------------------
```

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: Dan Martin <dmartin@visuallink.com>
Subject: Balanced Line
Message-ID: <3373984C.3872@visuallink.com>

For those BA'ers using ladder line who are interested in my previous question "... can insulated LL be draped on the ground ...?", the overwhelming consensus from almost two dozen private replies (thanks, folks!) was, "certainly!" Many do it. One ham has successfully run ladder line underground through plastic pipe (!). Several cautioned on the usual restraints - not real near metal, etc. - but the diversity of ladder line installations was staggering. While theoretical considerations and textbook recommendations should never be tossed aside with abandon, my small survey seems to indicate if your desired ladder line routing isn't textbook but is otherwise intrinsically safe and sound, try it! You may be pleasantly surprised! This approach was best summarized by one respondent who reminded me of Gooches Paradox ... "rf gotta go somewhere!". Thanks for the bandwidth. There were just too many replies to share this synopsis individually.

Now ... back to my lil' Ranger, beautiful J4, and tall fescue ladder line! CUL.

73
Dan
WB4GRA
Winchester, VA

```
From boatanchors@sco.theporch.com  Fri May  9 20:56:43 1997
From: Bob Reynolds <breynold@sigg.com>
Subject: Balanced Line -Reply
Message-ID: <97May9.170222cdt.19696@firewall.sigg.com>
```

Dan wrote:..
. can insulated LL be draped on the ground ...?", the
overwhelming consensus from almost two dozen private replies
was, "certainly!"
the usual restraints - not real near metal

What is "real near" - 6 inches or so or more like 2 feet ?

thanks 73, Red K5VOL

breynold@sigg.com

```
From boatanchors@sco.theporch.com  Sat May 10 11:40:55 1997
From: Jeffrey Herman <jeffreyh@hawaii.edu>
Subject: Re: BOATANCHORS digest 1433
Message-ID: <Pine.GSO.3.95q.970509184818.1240A-100000@uhunix3>
```

N5DC asked about a source of Nicropress fittings:

Any marine store will carry them, but if you're not close to the coast, give West Marine a call (call the 800 directory assistance for their toll-free number).

Now, as a sailor let me tell you that the strongest wire fitting is the ugly wire clamp (it's the cheapest, too). According to a sailing magazine which had conducted strength tests of all the popular fittings, wire clamps (also called wire clips) will hold over 100% of the wire strength, i.e., the wire will break before the clamp will slip. Next was the Nicropress fitting; I believe it will hold up to 70% of the wire's strength (if it's put on properly with the correct swagging tool). (No special tool is required in attaching wire clamps.)

73, Jeff KH2PZ / KH6

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: Tom Norris <badger@telalink.net>
Subject: BOATANCHORS? SCHMOATANCHORS!!! (fwd)
Message-ID: <3.0.1.32.19970509221421.00ac3b80@telalink.net>

You think that AR-88 cost too much, look at this message that was posted to RRAB...... geesh...

>Newsgroups: rec.radio.amateur.boatanchors
>Subject: BOATANCHORS? SCHMOATANCHORS!!!
>Date: 8 May 1997 10:32:05 GMT
>
>This is the real thing!
>R-390s?
>Child's play
>Racals, Hallicrafters, Nationals? Throw em out!
>What you need is a radio that weighs a quarter-ton!!!! (A Kg is 2.1 lbs)
>(P.S. This guy only has thirteen of them, so act now)
>
>POSTED ELSEWHERE:
>
>Dual diversity receiver system RCA SSB-R3 in exellent cont.Original all
>components
>Realy havy and big system 260 Kg. Dimensions 50" x 30" x 92"
>I can sent you photos
>Perfect Audio
>13 pieces avelable 1,600.00 $ ea + sh

```
>Only for collectors                                 ham call :sv7apq
>Email :achiles@kom.forthnet.gr
>
>
>Maybe he shoulda posted this on the audionut pages. It's got tubes and
>perfect audio too!
>
>
>
********************
thermionic@techie.com
fernblatt@usa.net

TANSTAAFL: There Ain't No Such Thing As A Free Lawyer......

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From boatanchors@sco.theporch.com  Sat May 10 11:40:55 1997
From: Paul Nelson <drhydro@ames.net>
Subject: Boston
Message-ID: <v03102807af996981436d@[206.29.126.177]>

I'm headed for Boston next week, and will have enough free time in the
latter part of the week to investigate any BA haunts that any of you are
kind enough to alert me to.....

any hamfests next weekend in the Boston area?

and when is the May MIT swap meet? Is it - by any stroke of good luck -
next weekend?

Thanks.....

Paul Nelson W5GNF               "When I go, I want to go quietly, in my
Ames, Iowa                       sleep, like my grandfather- not
                                 screaming, like his passengers."
(DrHydro@ames.net)
                                 "More hay, Trigger?"
 Cessna 140 N77149               "No thanks, Roy, I'm stuffed."



From boatanchors@sco.theporch.com  Sat May 10 11:40:55 1997
From: Tom Norris <badger@telalink.net>
Subject: Covers for CV591??
Message-ID: <3.0.1.32.19970510001821.00aaa350@telalink.net>
```

Anyone have the covers -- top and bottom -- for the CV-591
convertor? Anyone have a CV591 with covers they will trace
so I can make a set? A stepper relay cover would be nice too.

Got the CV591 in today, well packed, works well, didnt need
any adjustments, but NO COVERS. Oh well. It's going in the
rack.

I like it so far, makes SSB with the 390A much more enjoyable,
and the 2 watts of audio is nice too.

****
Tom Norris KA4RKT
badger@telalink.net   Nashville, Tennessee, USA

Eagles may soar free and proud, but weasels
never get sucked into jet engines.
****

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: Surplus Al <surplsal@tl.infi.net>
Subject: Flyers at Dayton
Message-ID: <3373722D.78DF@tl.infi.net>

A note to all the FB folks on the net. I am going to pass out a flyer at Dayton, If any of the BA folks are looking for specific items to upgrade their shack, send me a short msg w/URL & QTH and I will include this in your request for your need. Pse Email me direct. Regards Al W3UGD
The flyer will include your request. Only items pertaining to BA accepted.

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: robert fowle <hammarlund@jacksonmi.com>
Subject: for those who have my page as a link
Message-ID: <3.0.32.19970509213641.00777908@fvmail.com>

first I thank you.

next if you go to: http://jacksonmi.com/hammarlund/jpg/button.jpg

and down load the button, to use for my clickable link 'button' so to speak....
of coarse, you don't have to use it, but thought some of you might like it.

again, thanks to all...

Best Regards
Robert Fowle
1215 Winifred
Jackson, Mich
49202-1946
Hammarlund Historian
http://jacksonmi.com/hammarlund

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: k7sz@juno.com (Richard H. Arland)
Subject: FS: Halli SX-110 and MIL-BAs
Message-ID: <19970509.201146.6959.12.k7sz@juno.com>

Gang:

Gotta get rid of some of the stuff in my collection:

Hallicrafters SX-110: completely recapped, both dials restrung and receiver has been realigned. Electrically a 10. Cosmetically: 7.5. Front panel is vy good (some small rubs on the lettering for ANT TRIM and BANDSPREAD). Cabinet has some paint chips gone on the top left rear and side. Need to be repainted and I don't want to take the time. With original manual: $150 + shipping.

Navy TCS-14 complete with antenna tuning unit and a VERY good copy of the original manual. Dusty on the outside but immaculate on the inside. HB power supply with proper canon plugs. No mic or headphones. I've never fired this beastie up. It was going to be a "winter" project this year. $250 (deliver or pick-up only).

GRC-109 set complete with partial repo of TM. Works good. Bought this on a whim about 2 weeks ago from Fair Radio. Made several contacts with it and the RX works on all bands. This is the original model with the thumb screws on the lids. The power supply is the PP2684 AC/DC supply. Thought I wanted to start a MIL-BA collection, now I don't. $130 + shipping.

I can bring one or all of these to Dayton. The TCS weighs well over 150 pounds with PSU. I do not want to ship that puppy. Will deliver the TCS within a 150 mile radius of Scranton/Wilkes-Barre, PA.

73 rich K7SZ
(717) 825-5395 (home...anytime)

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: Paul & Sandra Bock <bocks@erols.com>
Subject: Re: FSK in the Navy
Message-ID: <337405FF.3427@erols.com>

Gang,

While I haven't followed this thread in its entirety, and cannot comment on the "where it all began" question (I ain't old enuff!), I thought I would throw out a couple of comments based on my experience.

First, in the Navy of the '50s & '60s it was generically referred to as RATT, although that term really applied to both the true FSK (as used on HF) and the AFSK used on VHF/UHF (AN/URT-7 & AN/URR-27 on VHF, TED-9 & AN/URR-35 on UHF). I was always amused by this, as the ham equivalent was RTTY, but both were supposed to be abbreviations for radio teletype (RA-dio T-ele-T-ype in the Navy, R-adio T-ele-TY-pe in ham lingo).

Standard Navy circuits of the '50s/'60s were 100 WPM, usually encrypted by the KW-26 or KW-7 crypto gear for ship-to-shore, ship-to-ship, and shore-to-ship (Fleet Tactical Relay) circuits. Fleet broadcast (shore-to-ship) was encrypted using the KW-37T at the COMMSTA, with the ships carrying only the KW-37R for breaking out the broadcast.

Most of the GENSER (General Service) TTY gear was Teletype Corporation, although NAVSECGRU used Kleinschmidt as well. In the '60s the Mite Corp TT-299/U was introduced, and it quickly gained an abysmal reputation as it was originally intended for 60 WPM and at 100 WPM was difficult to keep running well. Teletype Corp stuff, OTOH, just ran, and ran, and ran.....

With the proliferation of SSB equipment in the '60s the larger ships and NAVCOMMSTAs began running VFCT, which used 85-*cycle* (know what that is?) shift as opposed to the 850-cycle shift of the standard RATT. The VFCT signal actually "interleaved" individual RATT signals into a "tone package" of 8 or 16 channels; an audio filter bank broke out the individual tone pairs and converted them to DC loop currents to drive the TTY machines. Smaller ships stuck to the 100 WPM single-channel RATT as there was little to be gained by multiple channels when you didn't have that much traffic anyway (on the other hand, aircraft carriers or a cruiser carrying the "Flag" generated *LOTS* of traffic).

One of the things we did on USS BELMONT (AGTR-4) and some of the other AGTRs was to use EME which ran two channels of 100 WPM RATT at about 2 GHz. One channel was the orderwire, the other was the traffic channel. The "other end" was either Hawaii or Cheltenham, MD (both of which had 65-foot dishes). As long as the moon was 5 degrees or more above the horizon at both ends of the circuit, it was like a landline!

BELMONT steamed a lot in the South America region, and HF was p***-poor because the nearest NAVCOMMSTAs were Balboa (Panama), Puerto Rico (aka "Jitterbug"), and Gitmo (aka "Barbaric"). Thus, before we got the EME system (TRSSCOMM, or Technical Research Ship Special COMMunications) keeping HF comms up was a real nightmare. Once, off of Chile, we encountered a SID which lasted for almost 24 hours. We were "incommunicado" as far as transmitting, and the only way we could get the Fleet Broadcast was via VLF (probably 60 kHz; not sure) and it was, indeed, RATT.

With the development of Navy SATCOMM in the '70s the TRSSCOMM became nothing but a short-lived experiment and HF RATT has probably gone the way of the Dodo bird. I spent a fair amount of time cleaning antennae and trying to squeeze the last few watts out of the AN/WRT-2 HF transmitters aboard ship, and years later sweating the "rels" of the ship-to-shore Tactical Comms when I was Receivers Officer at NAVCOMMSTA Morocco.

"MEMMMMMMMMMMMMMM-REEEEEEEES, like the colors of your mind......"

73,

Paul, K4MSG (ETCM, USNR-RET)

ET1/ETC, Leading ET, USS BELMONT (AGTR-4), 1964-68

WO-1/CWO-2, Receivers Officer & Ass't EMO, NAVCOMMSTA Morocco, 1969-71

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: n6nae@ix.netcom.com (Richard Humphrey)
Subject: RE: FSK in the Navy
Message-ID: <199705100428.XAA12229@dfw-ix16.ix.netcom.com>

RYRYRY
RYRYRY
RYRYRY
RYRYRY
Hi:
Sorry for the late reply. I've been looking through my copy of "History of Communications-Electronics in the US Navy", LS Howeth, 1963, looking for the answer. In so many words, it ain't there. But there's enough clues to piece together an answer. Risky, I know!

The only entry in the index under Frequency Shift Radio Transmitter takes the reader to a paragraph talking about the use of RTTY for Fleet

Traffic. OK so far, RTTY and FSK can go together. The reasons given for the change to RTTY were the massive volume of traffic out of the Pacific theater, the lack of success in getting message originators to correctly prioritize their messages, and the desire to move telegraph operators to sea duty and to reduce the need for training new ones.

Going to the timeline at the back of the book, it says that RTTY was tested on a few fleet circuits in 1944. Upon successful completion of the tests, RTTY was implimented on most fleet circuits that same year.

So, I'd say that the Navy went FSK RTTY in 1944.
Richard
n6nae@ix.netcom.com

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: Ho4bart@aol.com
Subject: Re: FSK in the U.S. Navy
Message-ID: <970509130231_1289946393@emout10.mail.aol.com>

In a message dated 97-05-08 16:36:21 EDT, k1er@gte.net (John D. Peters) writes:

<< The broadcast to the missile submarines was always RTTY. >>

is this the case? i remember that the vlf transmissions from NSS, NAA, NPM, NPG/NLK were cw thru 1962, at least.
hue miller

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: jproc@bellglobal.com
Subject: Re: FSK in the U.S. Navy
Message-ID: <Chameleon.4.01.2.970509213833.jproc@jproc.bellglobal.com>

>If this the case? i remember that the vlf transmissions from NSS, NAA,
>NPM, NPG/NLK were cw thru 1962, at least.

Dear BA'ers,

I thought I would capitalize on this intro and present one of my latest newletter articles.

****

ELF and VLF COMMUNICATIONS

Edited by Jerry Proc VE3FAB

Most of us never venture into the 'basement' of the radio spectrum, yet some amazing and unusual techniques are used down there to communicate with submerged submarines.

For years, VLF signals (3 to 30 Khz) have been able to penetrate water to depths of about 10 feet. To achieve one-way, long distance communications with submarines down to about 330 feet or deeper, it is necessary to resort to an Extremely Low Frequency (ELF, 300 Hz to 3 KHz) system. A system such as this is very expensive mainly because of the great length of the antenna. The US 'Austere ELF' system for example, has an antenna some 200 km (125 miles) in length. ELF has two major disadvantages. It suffers from the inevitable natural noise in that part of the spectrum and also has a very low data rate. The Austere system is capable of passing just one three letter group in 15 minutes. With three letters it would be possible to signal some 17,576 codes (26 letters by 26 letters by 26 letters). The most important use of the ELF system would be to act as a 'bell ringer' by instructing the submerged submarine to approach the surface and deploy a float or mast mounted antenna to receive a higher level HF or satellite signal.

In the United States military, the primary means of communicating with submerged submarines is the TACAMO (Take Charge and Move Out) system which uses a fleet of aircraft. Two aircraft are always airborne - one over the Atlantic and one over the Pacific. Other aircraft are stationed on the ground and they are on a 15 minute alert. The aircraft fly 10.5 hour missions, starting at one airfield and ending at another. Random patterns are flown to mislead any unauthorized observers. The TACAMO aircraft can receive and relay signals from a number of different ground command posts. Each aircraft is equipped with a 6.2 mile long trailing wire antenna (wound on a reel) and a 100 kw transmitter operating in the VLF region. When the aircraft has to transmit a message, it banks and proceeds to fly a very tight circle. The causes the trailing wire antenna to hang vertically below. Once the message is transmitted over the VLF downlink the aircraft resumes normal flight.

The TACAMO fleet was initially comprised of the Lockheed Hercules EC130 aircraft, but these are being gradually phased out and replaced with the Boeing 747 AWACS type aircraft. These aircraft have the capability to transmit a 200 kw signal using a 2.5 mile trailing antenna. Somehow the problem of how to fit a 160 meter amateur radio antenna in a restricted space seems trivial when compared to the problems of seriously operating on VLF and ELF frequencies.

Reference: Max Walmer, An Illustrated Guide to Strategic Weapons.
Arco Military Books. 1985.

Regards,

Jerry Proc VE3FAB
E-mail: jproc@bellglobal.com
HMCS HAIDA Naval Museum, Toronto
www3.sympatico.ca/hrc/haida

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: "John D. Peters" <k1er@gte.net>
Subject: Re: FSK in the U.S. Navy
Message-ID: <3374384E.3F48@gte.net>

Ho4bart@aol.com wrote:

>
> In a message dated 97-05-08 16:36:21 EDT, k1er@gte.net (John D. Peters)
> writes:
>
> << The broadcast to the missile submarines was always
> RTTY. >>
>
> is this the case? i remember that the vlf transmissions from NSS, NAA,
> NPM, NPG/NLK were cw thru 1962, at least.
> hue miller

Yep, for sure.I was there, on patrol. The continuous broadcast was covered RTTY with a CW backup. If the RTTY failed (usually as part of a drill) you copied the EAM drill messages on CW. If the fleet broadcast was shut off as part of the same drill, you copied the TACAMO aircraft CW.

The TACAMO CW was difficult! The continuous carrier used to keep the antenna tuner correctly set was nearly as loud as the keyed signal. Like copying CW through a jammer perfectly zero beat.

It helps when the CO or XO or member of the team is a DXer. I'd have the message copied and be done while the poor RM were still struggling for a 100% copy. RM school did not teach CW with jamming.

73 John K1ER

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: Ken Gordon <keng@uidaho.edu>
Subject: Re: FSK in the U.S. Navy
Message-ID: <Pine.BSF.3.95.970509190952.946A-100000@piobaire.mines.uidaho.edu>

On Sat, 10 May 1997 Ho4bart@aol.com wrote:

> In a message dated 97-05-08 16:36:21 EDT, k1er@gte.net (John D. Peters)
> writes:
>
> << The broadcast to the missile submarines was always
> RTTY. >>

I don't think this is correct.

>
> is this the case? i remember that the vlf transmissions from NSS, NAA,
> NPM, NPG/NLK were cw thru 1962, at least.

Right. I used an RAK-8 to practice my code by listening to the 5 letter code groups sent from NPM and NPG down around 15 kHz and 18 kHz. I was trying to get up past 20 WPM on a typewriter and learning to type at the same time. Worked wonderfully since I couldn't anticipate the next letter as you can with plain English. I remember that I was displeased when they all went to RTTY. This HAD to be after 1962 since I graduated highschool in 1960 and didn't even start on my higher speed code project until at least 1963. As I remember it, it was difficult to use FSK at VLF because the shift in frequency severely detuned the antenna system. So the Navy had to deveop some sort of phase shift RTTY.

Ken W7EKB

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: Ho4bart@aol.com
Subject: Re: FSK in the U.S. Navy
Message-ID: <970510111738_574662292@emout14.mail.aol.com>

In a message dated 97-05-09 22:57:47 EDT, k1er@gte.net (John D. Peters)
writes:

<< Yep, for sure.I was there, on patrol. The continuous
broadcast was covered RTTY with a CW backup. If the
RTTY failed (usually as part of a drill) you copied the EAM
drill messages on CW. >>

i'm willing to believe this. i built the "NAA Receiver", from a
QST article, about 1962. i remember there was tty on vlf, but
still copious cw. so that cw was what, secondary?
also, has anyone some details on these aircraft xmtrs on the
TACAMO

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: Ho4bart@aol.com
Subject: Re: FSK in the U.S. Navy
Message-ID: <970510112010_-796651499@emout11.mail.aol.com>

In a message dated 97-05-09 22:57:47 EDT,
k1er@gte.net (John D. Peters) writes:

<< The continuous carrier used to keep the
 antenna tuner correctly set was nearly as loud
as the keyed signal. >>

sorry about that screwed up previous post!
hairtrigger here.
anyone have details/ nomenclature on these
aircraft transmitters? how did they generate
the 'pilot carrier' ?
hue miller

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: Pete McCollum 09-May-1997 1404 -0600 <mccollum@ssdevo.ENET.dec.com>
Subject: HV switch ?
Message-ID: <9705092010.AA27753@us3rmc.pa.dec.com>

The local surplus shop has a couple of "HV switches" that are made
thusly:
3 ceramic-insulated contacts with a grounded metal disk above them. When
the switch is operated, the disk makes contact with all three contacts,
thus shorting them to ground. The 'operating handle' is a 5" or 6" length
of nylon rod.

Anyone recognize these things? One of them has a paper inspection tag
that says Collins. Are they part of a xmtr?

Thanks,
Pete

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997

From: michael.hopkins.1171@corvus.com (Michael Hopkins)
Subject: KAAR 10Z Tx -- immortalized
Message-ID: <9705091700285965@corvus.com>

N4QB, the CQ photographer who does the calenders, just left after spending 4 hours taking pictures of the KAAR 10Z belonging to my son Clint, KC5FDL.

Be looking next year for the rarish California 10 watter which featured AM/CW, 160-10 without 15M and parallel output only. The KAAR 10Z came out in '38 but its present owner is an '84 model.

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: rlahlum@juno.com (Ross J Lahlum)
Subject: kazott@juno.com (ott kazott): BA Radiation...
Message-ID: <19970510.113652.10038.2.rlahlum@juno.com>

Well this is sort of radiation question...

Has anyone actually seen one of these BA meters glow? I have a half dozen or so of the 390/390A/391 rigs. Various contracts and manufacturers. All display radiation indications on a sensitive giger counter and yet, none one of the meters glows. Not even a little.

Was wondering, were they very bright, bright, dim, any color?

My 1956 Collins R-390A's meters glow slightly; one is much dimmer than the other. The lights in the shack have to be off, then you can see them. The
radiation from the dimmer meter is stronger than that from the brighter one, but
I don't know why. I think somebody on the list once mentioned that there were other
luminous compounds in the mix besides radium.

73,
Ross KB9JJR
rlahlum@juno.com

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: Jack Antonio WA7DIA <dia@intercomm.com>
Subject: Manual needed
Message-ID: <337415A5.77C0@intercomm.com>

This isn't exactly a boatanchor,(except for the CRT)but I use it
for servicing BA equipment, so here goes.

Looking for a manual for a Singer FM-10. This is *not* the FM-10-CS
version but the version that only goes to 500 MC/S. I've tried all
the usual manual places with no luck.

Thanks in advance.
--
Jack Antonio WA7DIA
Reno, Nevada
dia@intercomm.com

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: ARONGV@aol.com
Subject: Manuals For postage
Message-ID: <970509160333_-1667413831@emout10.mail.aol.com>

Hi Gang:

Hope some of you find something useful.

Following are 17 manuals and a WRL: ad that tells about the UM-1 modulator.

1. No E-mail to me will be accepted until 0001 CST 10 March. Try before then
and you'll be deleted.

2. Please ask for these (just one each, please) ONLY IF YOU REALLY NEED
ONE>>>>>NOT IF YOU ARE JUST CURIOUS.

3. Please don't clutter up my address. just send what you want, don't repeat
this post.

4. You very well may get your postage back, but if you don't send something,
you won't get anything. This is not a for profit deal. Let's have fun and
help those guys working on projects get their needed manuals. Those listed as
"heavy' probably should be $3 or $4.

5. Please E-mail direct to me, don't respond on the BA list.

6. I will notify the first-come first-served as the manuals go directly to
your E-mail addresses.

7. My next BA post will be to indicate the list has been spoken for, exit
stage left...........

I may add a couple to the list tomorrow, after i make sure i've cleaned out my rig room. Can you believe before i started this i had over 50 unused, unwanted manuals sitting around here?

Anyone else have manuals sitting around gathering dust? Someone is probably just hoping you'll say, "Sure." Some are harder to find than parts!

73s & Good hunting

Ron W0OIZ Kansas City
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
Keeping Hallicrafters, Johnson, RME & Swan on the air.
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Hallicrafters S-85 Ops & Service Instructions

Hallicrafters SX-99 Ops & Service Instructions

Hallicrafters SX-24 Operating, alignment, Service

Heath Sa-5010 Keyer Original Manual heavy

Heath Weather computer ID-4001 Original Manual heavy

Challenger Gap Instructions

Heath AR-3 Receiver Assembly & ops Orig Manual heavy

HW-16 manual, Xerox, not bound

Heath Resistance & Capitance sub boxes manuals

Heath original (Good, but used) SB-301 $$$(postage)

Heath SB 401 Good Original Heavy $$$ (Postage)

Heathkit Comanche MR-1 Vy Nice Reprint, heavy

Hallicrafters SX-42 Ops Instructions repro

National NC-57 repro

S-77 Service Instructions

Heathkit HR-10B receiver assembly manual

Ad (2-pages) showing WRL UM-1 plate modulator

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: ARONGV@aol.com
Subject: Manuals For Postage
Message-ID: <970509184421_1921022829@emout19.mail.aol.com>

Gang:

IS MY FACE RED. SOMEHOW I MANAGED TO HIT SOME INTERESTING KEYS AND WHAT CAME OUT WAS AN OLD MESSAGE ABOUT MANUALS FOR POSTAGE.

PLEASE DELETE AND PARDON MY COMPUTER IGNORANCE.

RON W0OIZ

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: ARONGV@aol.com
Subject: Manuals For Postage Soon
Message-ID: <970510013925_1921063461@emout20.mail.aol.com>

Hi Gang:

Well, after totally embarassing myself with an unplanned "Manuals For Postage" misdirected post, I got to thinking maybe I'd better dig into my files and see if it's worth starting up another list.

If those who have a special need will contact me at my E-mail address, I'll compile a want list and see if I can meet it.

Meanwhile, I don't make any profit from these offerings. Also, I've been reminded by the manual suppliers that if you have a hard to find manual, you might want to consider lending it to W7FG manuals and The Manual Man. At least that way, hard to find manuals can be available to anyone stuck on a project. It might cost $16 or so for someone to buy, but I've seen times when I'd give $50 for one.

Then too, there's always our own List archives to remember when you're trying to help.

73s & Good hunting

Ron W0OIZ Kansas City

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: don merz <71333.144@CompuServe.COM>
Subject: Mic, WE thing, misc FS
Message-ID: <970510150149_71333.144_DHB57-4@CompuServe.COM>

Miscellaneous For Sale

CONTACT: Don Merz, N3RHT: 47 Hazel Drive, Pittsburgh, PA   15228.
412-234-8819 (weekdays, EST or leave a message anytime).
71333.144@compuserve.com   Trades and offers welcome!

Electro Voice EV-649B dynamic microphone. This is a small modern lavalier-style mic with a 4 foot cord. The cord is fraying at the mic end. With 2-pin mic connector that has an intermittent connection. Working as-designed. $29

Western Electric 522-W "Receiver With Victrola Attachment." This is a horn driver with a little base on it to make it stand up. It is all nickel-plated with cloth cord and pin-jacks. Brand new in the original box. $75

1958 Cameradio catalog. Excellent. $8

National bar knobs as used on military radios including RBL, RAO, etc. One plain bar ($4) and one with metal skirt marked 10-9-8-7-6-5-4-3-2-1-0 ($5).

Operating An Amateur Radio Station, ARRL, 1971. $3

Public Service Communications, ARRL, undated (1970's). $2

Zenith Television Receiver Operating Manual for models 15Z31 and 15Z31U. Undated but looks 50-ish. Free

"Service and Repair" sections from a number of "Radio Call Book and Technical Review" Magazines. I guess someone started to make a file of these. About 60 pages. $3

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: Paul & Sandra Bock <bocks@erols.com>
Subject: More on TRSSCOMM
Message-ID: <3374B7A0.3C9C@erols.com>

Gang,

Thanks for the compliments on the Navy comms piece. For those who expressed interest in TRSSCOMM, here's a brief history as best I know it.

TRSSCOMM (Technical Research Ship Special COMMunications) was first implemented on USS OXFORD (AGTR-1), a converted Liberty ship, in the early 1960s. I have no details about it except that the antenna pedastal was a converted 40mm gun mount, the entire rig was "homemade" by NRL, and the two receive channels used R-390A/URRs as tunable IFs. I had the chance to visit briefly aboard USS GEORGETOWN (AGTR-2), which had an identical system to OXFORD; it was *VERY* homebrew (lab-built units with controls labeled with Dymo tape, etc.

The system worked so well for handling traffic (as long as the moon was up) that Lockheed Electronics was awarded a contract to develop a "real" system, the AN/SRC-33(XN-1). The first of these went on USS LIBERTY (AGTR-5), and the second on USS BELMONT (AGTR-4), which were the two Victory-class hull conversion AGTRs commissioned in 1964. (NOTE: LIBERTY got the first system because BELMONT, having been commissioned a couple of months before LIBERTY, was deployed to the Dominican Republic as part of the task force sent in 1965 when a revolution occurred in that country). A third system was installed on USS JAMESTOWN (AGTR-3).

The SRC-33 consisted of a 12 kw klystron tranmitter, a parametric amplifier and receiving system, and a 16-foot, hydraulically-controlled dish with selectable feed (LH circular, RH circular, or linear) and a closed circuit TV system with the camera on the dish for visual moon-tracking. A computer system accepted inputs from the ships gyro and Roll Stabilization Data Set to keep the antenna tracking despite ship movements. The antenna had to be pointed no farther away than 1.5 "moon diameters" in the TV camera in order to scatter sufficient energy to be received by the other station.

Two frequency bands, 1800 MHz and 2300 MHz, were used for separate transmit & receive (the system was full duplex), but I can't recall which was which.

The shore station (a NAVCOMMSTA) used a 65-foot dish and also could run 12 kw, so the extra antenna gain made up for "insufficiencies" in the ship equipment. I'm pretty shore these "insufficiencies" made it impossible for two ships to communicate via moonbounce.

Running 8 kw from either end, it was a ship-to-shore "landline." While I cannot possibly comment on our mission, I can tell you that AGTRs generated *LOTS* of outgoing traffic (hint-hint-hint). If you want to know more, read "The Puzzle Palace," in the chapter titled "Platforms."

When LIBERTY was shot up by the Israelis (and please, no comments which will get me started on *THAT* thread!) the media referred to the SRC-33 antenna as LIBERTY's "Big Ear;" shows what they knew! That dish was LIBERTY's "Big *MOUTH*," HI!

After LIBERTY's demise and the subsequent capture of USS PUEBLO (AGER-2), a "smaller" version of the AGTR, by North Korea, the Navy began to look for other alternatives which weren't so vulnerable (like, "special research" spaces on cruisers, etc.). That plus the development of Navy SATCOMM rendered the moonbounce systems passe and they disappeared as the AGTRs and AGERs were decommissioned around 1970.

Trivia: Voice callsigns of the AGTRs -

USS OXFORD (AGTR-1)	WARDROBE MIKE
USS GEORGETOWN (AGTR-2)	DAUNTLESS
USS JAMESTOWN (AGTR-3)	MATCHLESS
USS BELMONT (AGTR-4)	EAGLE HALL
USS LIBERTY (AGTR-5)	ROCK STAR

BTW, AGTR *officially* stood for Auxiliary, Miscellaneous class, Technical Research. To us, it stood for "Always Going To Revolutions."

73,

Paul, K4MSG

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: "Lawrence R. Ware" <lrware@pipeline.com>
Subject: old command set, or parts for free
Message-ID: <3.0.16.19970509191809.315f5d82@pop.pipeline.com>

Free to good command set collector home:
One box brackets, gears, pullys, levers, frame pieces, and other misc. (mainly mechnical) command set parts. About 15-20% silver plated RF pieces...

Rules of Ware apply.

-Larry

# Larry's Home for Wayward Test Equipment & Old Radios (tm)
# Let your equipment retire in sunny central Florida.
# Intensive Care, Private Bench Space, Frequent Use,
# Factory trained HP, Tek & Fluke Surgeon on staff.
# Good Home Guaranteed or double your junk back!
# lrware@pipeline.com   - Orlando, FL -

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: "Kenneth G. Gordon" <keng@uidaho.edu>
Subject: Possible interesting project...
Message-ID: <199705092221.PAA29037@piobaire.mines.uidaho.edu>

I have been in contact with Bob Collings of the Collings Foundation, headquartered in Stow, Massachusetts. Their address is:
Box 248, and their telephone number is (508)-568-8924. FAX is (508)-568-8231.

This foundation has restored a B-17 and a B-24 among other warplanes, and annually flies them to many places in the U.S. The organization appears to be a mostly volunteer organization, although there may be others on these lists who can fill in details.

In any case, when I visited the planes about 2 years ago, I was extremely disappointed to see that their radio operators' positions were not only not restored at all, but were almost completely bare. In one, there were a few TU-xx tuning units. No transmitters, no BC-348s, no ARC-5s, no BC-191/375, no dynamotors, no anything.

I am wondering if there are others on these lists who feel as I do, that such pieces of American history as the B-17 and B-24 should be complete in as great a detail as possible. I understand that this B-24 is the only one in the world still flying out of the over 18,000 built.

Bob Collings FAXed me 9 pages out of the B-17 manuals which show the radio equipment which was originally installed. I would be pleased to FAX these pages to anyone interested (after 7:00PM PST please).

He indicated to me that his foundation would be extremely interested in getting both period equipment and the operators to man it. Trips and/or rides in the planes were mentioned.

I mentioned the BoatAnchors to him as a group of highly skilled radio people who might be interested in helping with such a project.

So what do you all think?

Kenneth G. Gordon W7EKB
226 N. Washington St.
Moscow, Idaho 83843
(208)-882-8745 (Voice and FAX)

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: "Dick Dillman" <ddillman@igc.apc.org>

Subject: Re: Questions on the TBX
Message-ID: <72642.ddillman@igc.apc.org>

On Fri, 9 May 1997 17:49:58 GMT,
Jderm740@aol.com <Jderm740@aol.com> wrote:

>I don't know about the radiation factor but looking at the schematic for
>the TBX 8 (similar to the 5) this looks like a real turkey. It uses 1.5 volt
> tubes
>in the receiver, 3 volt and 6.3 volt in the transmitter. This thing might
>have been
>a good starter set right after the war when there was hardly anyone on the
>air,
>but today it wouldn't be much better than your father's Philco.

I, from personal experience, must concur.

Back in the late 50s I was lucky enough to join an Air Scout squadron on Long Island devoted entirely to... radio! We were on an Air Force base and had access to tons of surplus. Piles of NIB ARC-5s - we used 'em to prop open the door. A TBL as the club transmitter. And TBX-8s. Many TBX-8s. We used 'em, or tried to, on field day and the like. They were horrible. The thing I remember most was that the IF was, what? 1510kc. or so? I know for sure we had a local 250W broadcaster on 1520kc. You can imagine the result.

The trick was of course to find a source of power for the hand cranked generator. My technique was to get a guy to give it a try... "See? It's easy!". "Well, okay," was the hoped for reply. Then and only then did you push the PTT button or the Morse key. This was always accompanied by a large "Ugh!" from your source of motive power as the cranking effort increased about ten times. Gad, can you imagine using one of those things under fire in a foxhole? Brave men did.

There was a wonderful little crystal calibrator box thing that went with the TBX-8 that put out more power, it seemed, than the unit itself. We used 'em for bicycle mobile! Them's were the days.

Say, I've asked before but not for a while: any former members of Air Scout squadron 466 on the list?

73,

Dick

Dick Dillman
WPE2VT W6AWO
<ddillman@igc.apc.org>

Collector of Heavy Metal:
Harleys, Willys and Radios Over 100lbs.

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: Ho4bart@aol.com
Subject: Re: Questions on the TBX
Message-ID: <970510105806_841576965@emout02.mail.aol.com>

In a message dated 97-05-09 14:31:46 EDT, Jderm740@aol.com writes:

<< I don't know about the radiation factor but looking at
the schematic for the TBX 8 (similar to the 5) this looks
like a real turkey. It uses 1.5 volt tubes in the receiver,
3 volt and 6.3 volt in the transmitter. This thing might have
been a good starter set right after the war when there was
hardly anyone on the air, but today it wouldn't be much
better than your father's Philco. >>

actually if you tend to like green, combat type transceivy
things, this set is right up there. it looks tuff, and as the
postwar surplus ads read, "complete 2-way radio station".
what's so strange abt that tube lineup? the xmtr takes 6 and
500 dc. the rec takes 1.5 and 90 dc. this is a standard and
very rational division of voltages for portable equipment of the
period. the only real problem with the set is the selectivity.
but as the very appropriate analogy given by Walt Huthchins
goes, "you don't drive your old horseless carriage on the
freeway at peak hour"............the olde Philco can still do a
certain job for you, within its limitations. with apologies to
tube fanatics, all these boatanchor sets are obsolete and
outperformed by the latest equipment. if you really NEED
maximum performance in your hobby radio, why mess with
boatanchors at all?
hue miller

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: "A. B. Bonds" <ab@vuse.vanderbilt.edu>
Subject: Re: RCA BC Mike
Message-ID: <1997May09.142122-0500@spike.vuse.vanderbilt.edu>

In <00019E61.1914@scs.philips.com>, Brian Harris wrote:
>I need help with identification and specifications (impedance, level,
>frequency response and shape) off an RCA microphone I just acquired. It has
>some history, having come from Dallas radio station WFAA some forty years or
>so ago. I intend to use with my RCA broadcast transmitter if it makes sense.

```
>
>Physically, it looks like a HUGE pill (capsule).  It is about 8 inches long
>and 2.25 inches in diameter.  The upper part is chrome plated and has holes.
>The bottom part is black and has chrome ring with the RCA emblem.  The
>connector comes off the back of the lower section.  At the very bottom of the
>"capsule" there is a hole with a screw adjustment.  Marked on the housing are
>the letters, U, B, and N.  Is this a frequency response setting or could it
>be for directional control?
>
You lucky guy.  You have just described an RCA 77DX.  You have an
earlier version, the later ones are kind of flat greyish green in
color, so as to be less obvious for television.

It is a marvelous design, based on the "velocity" principle.  The
pickup is an aluminum ribbon suspended between magnetic poles.  A
current is generated in the ribbon proportional to the velocity of its
displacement.  The neat thing about a 77 is that it has variable polar
patterns.  A ribbon (velocity) mike is inherently bipolar (B) in its
spatial sensitivity characteristic.  The 77 has a kind of acoustic
chamber that is exposed to the ribbon with a circular shutter
arrangement.  In one position it generates a unidirectional (U) or
cardioid pattern and in another it generates a non-directional (N)
pattern.

These mics sound extremely smooth, but aren't too hot in the high
frequencies.  Good for piano, bass micing but are prone to overload
with very loud sounds so must be positioned carefully.  When using for
voice there are two warnings:  (1)  Very prone to popping with
sibilants.  Position so that you talk a bit across it, else the "p's"
will blow someones speakers out.  (2)  Has a very strong distance
effect which results in about a 20 dB bass boost when you are within
15 or so inches of the mic.  If you have a whiny voice, this helps a
lot.  Note that this is the mic that Johnny Carson used for the
Tonight Show....
>
>Any idea what it's worth?  No, I don't want to sell it!  Oh yes, it even came
>with the original cloth cover which has a zipper.  Ain't life great!
>
No kidding!  I just saw some for sale for $1300, so I'd guess at least
$1000 unless it is beat up real good.  If you need service on it,
Clarence Kane in New Jersey (ENAK Microphone Service), who used to
work for RCA, can do the job superbly.

          Lucky you!         A. B. Bonds



From boatanchors@sco.theporch.com  Fri May  9 20:56:43 1997
```

From: "Paul Christensen" <paulc@ccse.net>
Subject: Re: RCA BC Mike
Message-ID: <19970509195828.AAA22016@ccse.net.ccse.net>

|No kidding! I just saw some for sale for $1300, so I'd guess at least
|$1000 unless it is beat up real good. If you need service on it,
|Clarence Kane in New Jersey (ENAK Microphone Service), who used to
|work for RCA, can do the job superbly.

Clarence's work is absolutely outstanding. He's the only person I know in the restoration business where you never debate whether to refurbish the product or not. You just do it.

I recently had my RCA 77DX and 44BX microphones done by him. Upon inspecting the mics, I would challenge anyone to pick out his work versus one that's new-in-the box. Not only that, but he calibrates the microphones to RCA's standards.

Quite honestly, I wouldn't pay more than $800 or $900 for a 77DX, even if it's like new, a fair condition mic can be restored by Clarence to match it.

-Paul, W9AC

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: "Paul Christensen" <paulc@ccse.net>
Subject: Re: RCA BC Mike
Message-ID: <19970509203642.AAA25678@ccse.net.ccse.net>

Brian:

Yep. It's an RCA 77DX. Some will say that the black finish is more valuable than the gray umber, but I've always liked the gray. The control on the bottom is probably labeled as "M-V1-V2." M is for music recording where the low frequency response is nearly flat. V1 and V2 are vocal positions. Due to the proximity effect of the velocity microphone and the closer an announcer speaks into the mic, the low frequency response becomes much too pronounced. The V1 and V2 positions roll off the low end of the microphone.

You'll learn quite a bit about these classic microphones by visiting:

http://www.k-bay106.com/mics.htm

If you're very lucky, Frank Nocera may still have some WOR Radio mic flags available for your 77DX. See: http://soli.inav.net/~jebraun/flags.htm for more information.

A nice set of documentation for your new mic is available at:

http://soli.inav.net/~jebraun/velocity.htm

-Paul, W9AC

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: "Barry L. Ornitz" <ornitz@tricon.net>
Subject: RTTY, FSK and such in W.W.II
Message-ID: <199705100526.BAA10603@tricon.net>

There has been some interesting discussion going on lately about when radioteletype equipment was first used by the military. It is important to note that RTTY equipment actually worked with on-off or bipolar keying. FSK as the standard form of modulation for automated teleprinting equipment came much later. Early landline connections were "solid copper" in that the current loops carried direct current between sites. Polar relays and such were used to clean up the signals distorted by transmission over long distances.

My good friend and BA mentor in graduate school, Chauncey Clifton Wilson, the late W4BL (and originally W4AT), claimed to have installed the first teletype equipment in a Navy battleship in 1938 and 1939. Chief (or CPO Wilson) had been a radioman for many years on Navy destroyers. He said that as late as 1938 many destroyers still had simple regenerative receivers and a spark-gas transmitter as emergency backup equipment. The RTTY station was an experiment by some Admiral who felt automating the radioman's task was a good idea. It evidently worked quite well as Chief said he installed additional units in all the larger ships of that particular fleet.

These units were installed such that they could be directly patched to the main CW transmitters. Receiving required a simple tone to relay circuit. Evidently, the benefits of frequency shift keying, with its inherent redundancy, were not appreciated until later.

Now Chief was known for mighty tall tales in his day, so I pass the following on only for conversation. Chief claimed he could read RTTY directly over the air and write it down on paper. However, he could not get the letters/numbers shift mentally. He said he would write down the text as if everything was letters and then go back at the figures spot and convert to the right symbols. From a theoretical standpoint, Murray/Baud should be easier to copy than Morse since it is a fixed length code. With only 5 levels, it should not be bad. Eight level ASCII, on the other hand, might be a bitch to learn aurally!

I had a few minutes free tonight to catchup on some reading and thought I would join in a little bit. I hope to have more time in the future. The address below is the best one to reach me.

73, Barry L. Ornitz WA4VZQ ornitz@tricon.net

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: Tom Norris <badger@telalink.net>
Subject: Re: RTTY, FSK and such in W.W.II
Message-ID: <3.0.1.32.19970510081915.00a57100@telalink.net>

Barry, long time no see! Glad to see you back.

At 05:26 AM 5/10/97 GMT, you wrote:
>Now Chief was known for mighty tall tales in his day, so I pass the
>following on only for conversation. Chief claimed he could read RTTY
>directly over the air and write it down on paper. However, he could not

Well, may not be such a tall tale after all! When I live in Bowling Green KY years ago, there was an guy that used to show up that said he could do the same thing! This guy (his call escapes me) was a radio instructor for the navy with 30 years under his belt teaching stuff like RTTY.

I tested him out by firing up the the 28ASR and punching a tape with some random text on it. He read it as if it were in plain text!
Next thing was a bunch of us still skeptical of his claim to read over the air got together at a club meeting and desided to put him to the task.
One of us set up a rtty station at the meeting, one of us stayed home - the guy at the meeting would turn up the audio for the Navy guy and see what he could copy. Lo and behold this guy could copy with pen and paper about 80% of what we sent back and forth if we didnt go over 45 baud. (60 wpm? Been too long since Ihave done any RTTY)

He used much the same method of determining figures characters, if it looked like gobbledygook, he went back when he was finished copying and converted where the gobbledygook started.

It seems it CAN be done! He would show up at Field Day every now and again after that and wow 'em with the same feat : copying the text on a pad and pencil while the RTTY ops were running traffic.

Amazing. I do good to get CW at any reasonable speed.....

****
thermionic@techie.com
fernblatt@usa.net

TANSTAAFL: There Ain't No Such Thing As A Free Lawyer......

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: Ho4bart@aol.com
Subject: Re: RTTY, FSK and such in W.W.II
Message-ID: <970510101555_-1801408665@emout05.mail.aol.com>

In a message dated 97-05-10 03:17:25 EDT,
 ornitz@tricon.net (Barry L. Ornitz) writes:

<< Chief claimed he could read RTTY
 directly over the air and write it down on paper. >>

well, he's not the only one to have made such a
claim. there's a certain well known west coast ham,
who claims to have a certain cw speed standing (i
don't know if this claimed standing is generally
recognized by the rest of the ham world). anyway in
this electronics class i took, he told this anecdote
that he had once worked in some kind of teletype
office, and the news would be going across on the
day of some big sports event, and the teletype
techs in the office would cheer when the news of their
team's score would go across the teletype, the story
going that they decipher by listening, what was going
across. i didn't buy this story at that time (ca 1976)
and now seeing this other post mentioning the number
shift, which i hadn't even considered at the time, pretty
well puts a nail to this story. ah Harry, pretty good
stories you have, as long as the hearer doesn't question
anything.
hue miller

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: Sheldon Wheaton <swheaton@sky.net>
Subject: SCR-299 picture

Message-ID: <Pine.GSO.3.93.970510035947.29549A-100000@sky.net>

For a neat shot of a bunch of SCR-299 equipment, ready to ship out for active duty, enter this into your WEB browser:

http://image.vtls.com/VTLS/SC/02/073.jpg

Caption reads:

Army vehicles parked on Pier X, Newport News, including SCR-229 Radio truck, 5-passenger light sedans, 6 x 6, 2 1/2-ton trucks, 1 1/2-ton, 4 x 4 trucks, and 3/4-ton weapon carriers.

(SCR-229 should read SCR-299)

This picture is on the US Army Signal Corps Photo Collection, which "....includes more than 3,500 photographs from the Virginia Hampton Roads Embarkation Series, 1942-1946. This project provides a keyword searchable database, with links to the JPEG images of the photographs."

A search for the term "radio" produced only 21 hits. This only means the word "radio" is in the caption. Looks like only a few of those will have any radio equipment pictured. Start looking at this URL:

http://image.vtls.com/signal.corps/

73,
Sheldon KC0CW

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: Jeffrey Herman <jeffreyh@hawaii.edu>
Subject: Swap 6GE5 for 6146
Message-ID: <Pine.GSO.3.95q.970509172242.27932F-100000@uhunix3>

I've swapped my HW-16 for a Globe Scout xmitter. So now I find myself with no need for a NOS 6GE5 (used in the 16's final), but definitely in need of a 6146 (used in the GS's final). Anyone want to swap tubes?

Oh, might was well try to swap two 6CL6's for two 6V6's, also.

73,
Jeff KH2PZ / KH6
(running a little Globe Scout 65A on 160-10m)

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: "John Goller" <k9uwa@cris.com>
Subject: SX-42 & Matching Speaker
Message-ID: <199705100354.XAA22061@mcfeely.concentric.net>

OK Boatanchorites....one of the guys at work tells me he will bring in a Halli SX-42 and matching speaker that he found at his Dads house. Says there are also some more goodies there....his Dad wasn't a Ham....was a CB'er...back in the early days of CB....anyway..(read this as TUBE CB's) .question is...how much should I offer him for this SX-42 + Speaker ??? Says its nice on the front panel and has a few scratches on the top and sides.....
So how much????
de John K9UWA
John K9UWA

k9uwa@cris.com

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: vancleef@netcom.com (Henry van Cleef)
Subject: Re: TEK Scope Doctor on board?
Message-ID: <199705100152.TAA03485@netcom2.netcom.com>

As Dexter Francis discourses

> I'm diagnosing a TEK RM31A, prior to repair, and could use some advice.
>
> Main symptom is blowing the main fuse immediately after the 45 second delay
> timer turns the HV section on. When first powered up there was no
> horizotal deflection. I have no schematic or manual as yet.
>
> Is there a doctor in the house?
>
> -df

Dexter, get out your trusty ohmmeter. But first, get a manual from Deane Kidd. He's listed in Stan Griffiths' book (you do have a copy, don't you). Study the power supply schematic in some detail, and see how the relay switches ALL the voltages. The power supplies in the 530-A, 540-A and 580 (plain and A) scopes are similar but NOT identical. The older 530/540 (no suffix), which originally used selenium rectifiers, have some significant differences in detail.

The fact that the fuse doesn't blow until the time delay pulls in indicates that the transformer, diodes, and capacitors in front of the relay contacts are probably OK. I would check the diodes with an ohmmeter. These are on the right side of the vertical web in the scope, under a plastic cover. Be sure to replace the cover when you are done. There are sixteen of these. One bridge serves both the 225 supply (connected half-wave) and 350 (connected bridge). Use 1N4005 for replacement and replace ALL FOUR in a bridge if one is bad. (yeah, you can do just one, but for the price of diodes, I wouldn't want to guarantee that the other three aren't abused after a diode failure).

Turn the scope on its side and do a visual inspection underneath the power supply regulator chassis. This is a real catch-all for dropped hardware, which will often catch in the wires between the ceramic strips. I once took a quarter inch stainless steel bolt (not originally used by Tek anywhere I can think of in a 530-series) out of a scope that I got at a hamfest. Those supplies are all capable of delivering several amps, so take a good look for welded-up hardware stuck down there. Also take a good look around for signs of resoldering and solder splats. If you don't see anything, do a similar visual inspection elsewhere, particularly in the vertical amplifier, which is also horizontal with ceramic strips underneath.

Note that the relay controls ALL FIVE supplies (-150, 100, 225, 350, and 500) not just the feed to the HV oscillator (which is a nominal 325 volts, coming from the 225 supply in front of the series regulators.

Some ohmmeter checks at the five test points should show significant resistance. However, as I note, the lower voltage supplies deliver the better part of an amp in normal operation, so don't be astounded if you see only a few thousand ohms at the test points. The electrolytics behind the relay are obvious points to check. Generally, these fail open, and even on a scope that has sat on a hot shelf for twenty years, the current needed to reform them won't pop the fuse----certainly not instantly.

In general, there are a number of things that one might consider that are bad ideas, for reasons I will give:

1. Variac. Forget it, you're wasting your time. The specs on the scope are something like 105-130 VAC on the input, and operation as low as 85 volts on the input is about the lowest you can go and still have the time delay relay operate.

2. Pulling the series regulator tubes out. This does NOT disconnect the load circuits behind the regulators. The tubes have shunt resistors in parallel, and you'll likely cook one or more of those nice fancy wire wounds if you try this.

3. Disconnecting load circuits from specific supplies. Tek scopes rely on voltage differences, not a zero-volt ground return, in several circuits. Actually disconnecting supplies will give you things like screen-but-no-plate voltage on some tubes and other nasty things, and create expensive smoke where you least expect it.

You can, if you need to (i.e., if visual inspection and ohming out circuits isn't giving you conclusive results) disconnect all of the supplies from a given chassis so there is no power on it at all, but I would only run the scope for 30 seconds or so after relay pull-in---long enough to check voltages (they'll be out of regulation with the load off them) and power down.

4. Fiddling with the time delay. Don't. It's in there for a reason, and the tubes need to be warmed up before the voltages are applied.

5. Using a larger fuse for test. DON'T! There are plenty of faults that won't blow the fuse before something smokes, even using the rated fuse. Better to blow a few until you've found the fault.

One supply that you can isolate safely is the unregulated connection to the HV.

Some things to keep in mind about the power supplies in these scopes:

1. You are dealing with a setup that handles about 300 watts in normal operation, and they can deliver a kilowatt or more for a short time. Treat them like tube transmitter supplies.

2. The positive voltages are staircased. Each supply (open) is around 200 volts, referenced to the supply below it.

3. The -150 supply has the 5651 regulator tube in it, and is used to supply the reference voltage for the other supply regulators.

4. The +100 supply is connected to the plug-in through the blue ribbon connector through a resistor to provide 75 VDC at 150 ma. for plug-in heaters. This is fed through a tickler resistor during the time delay period, to start heating the plug-in heaters. Make sure this circuit is OK, and that the fault isn't in the plug-in.

A fuse-blowing fault behind the relay is a nasty one to trouble-shoot. Odds are on that a good visual inspection will disclose hardware in the wires or a solder splat. Beyond this, serious work with an ohmmeter is needed. Fortunately, a fuse-blowing fault is likely a hard fault (zero ohms or close to it), so just keep plugging till you find something. Of course, for ohm-out purposes, disconnecting circuits is a fine thing to do---just don't power the scope up without reconnecting. Also, take ACCURATE notes on which slots you lift wires from. Once you've lifted a wire, you'll find all those slots look the same.

Stan's book gives a good rundown on how the wiring color codes are used, etc., and you should have it. Also, unless you've spent a lot of time around Tek scopes and know what you are looking at, you are not going to get very far without the factory manual for the specific model you are working on. Don't try to rely on manuals for "similar" models---there are subtle differences that can spoil your whole day.

Good luck with this.

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===================================================================
Hank van Cleef
E-mail return address deleted because of junk e-mail abuse.
===================================================================
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From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: "Kenneth G. Gordon" <keng@uidaho.edu>
Subject: Very old receiver...
Message-ID: <199705092012.NAA27373@piobaire.mines.uidaho.edu>

I have had the following described receiver for a number of years. I rescued it from being thrown out by our Physics Department here at the U. of I. I have NO idea why they would even have such a thing.

It is mounted on what looks like a mahogany board, 17" long by 7.5" wide by 3/4" thick. The far left end of the board has three metal plates screwed to it, black paint on silver, which say, "GROUND", "AERIAL", and "DETECTOR", reading from back to front. Above each plate there are silver colored (probably nickle or german-silver) thumb screws, one each for the aerial and ground and two for the detector. Just to the right of the thumb-screw connectors, there is mounted a mahogany box with a sloping front and an overhanging lid. The box is about 6" high (including lid) 7.5" wide and 7" deep at the bottom sloping to 5.5" deep at the top. The front of the box is made of black bakelite and has 4 rotary tap switches with exposed circular contacts on them. The top two switches have 24 contacts. The bottom left one has 7 contacts and two end stops. The right bottom one has 3 contacts and two end stops. All four knobs are original black round ones.

The right side of the box has a hole centered in it about 4" in diameter, and sticking out of the hole is a large coil, made of what looks like #20 gauge, green-cotton covered wire. The turns of the coil are covered with a layer of cardboard. On the end of the coil is a piece of circular bakelite with another tap switch (with knob) sticking out of it. This switch has 8 contacts and two end stops.

The coil/switch combo slides in and out of the box on two 1/4" diameter rails, 2" apart. The rails are fixed into another piece of mahogany which is mounted near the right end of the mounting board.

On the end of the rail mount, there is a decal which says, "Electro Importing Company, New York"

On the very front of the mounting board, centered between the two bottom tap switches there are two more incomplete thumb-screw connectors. Below them there is another metal plate which reads, "PHONES"

The moveable coil is slightly damaged in that the screws which held the bakelite plate on its end have fallen out and some of the wires which run to the tap switch are disconnected. However, it doesn't look to me as if it would be hard to fix.

Does anyone know what this thing is, who might want it, and what it would be worth?

Thanks,

Ken W7EKB

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: Jim Garland W8ZR <4CX250B@miavx1.acs.muohio.edu>
Subject: Wanted: tuning knob for SX-101
Message-ID: <v0300780daf9a43dbd7c9@[134.53.65.12]>

I accidentally chipped the knob on my beautiful SX101, and then proceeded to lose the chip. I wonder if anybody could help me out with another knob?. Thanks.

Jim Garland W8ZR

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: heathkit@juno.com
Subject: WRL VFO

Message-ID: <19970509.212619.3366.3.heathkit@juno.com>

I just had a WRL 755 VFO given to me! Sounds like it'll work just fine with my DX-40. Does anyone else have one in service?

Unfortunately I didn't get a manual. Does anyone have an orphan hangin' round the shack they're willing to sell?

Danny Ruth (W3ZF) heathkit@juno.com
(still looking for SB-640 VFO to complete my SB station - and - wondering if anyone uses mechanical RTTY w/their BAs)

From boatanchors@sco.theporch.com Fri May 9 20:56:43 1997
From: "Douglas M. Gordon" <dmgordon@electriciti.com>
Subject: WTB: Globe K. Iron
Message-ID: <1.5.4.16.19970509162519.1e173d3a@electriciti.com>

Hi Boaters:

Still looking---need following iron for Globe King 400 project:

Stancor C-2307 Mod. swinging choke
Stancor 757C3 (special) smoothing choke 10 Hy 300 Ma (HV supply)
Merit A-3113 175 W Mod. Xfrmr
Also 5514 or V70D tubes

Is there a WRL lovers list? Also looking for a WRL US map with call areas circa 1955 or thereabouts. Thanks for reading.

73,

Doug K6PUN
Carlsbad, CA 92008

From boatanchors@sco.theporch.com Sat May 10 11:40:55 1997
From: "Joseph W. Pinner" <kc5ijd@net-connect.net>
Subject: WTD: Heath HO-10
Message-ID: <199705101227.HAA11490@dns1.net-connect.net>

I am looking for a Heath HO-10 monitor scope.

If you have one, let me know its condition and what you want for it.

73

Joseph W Pinner
Lafayette, LA
KC5IJD
EMail: kc5ijd@net-connect.net